### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

# (19) World Intellectual Property Organization International Bureau





(43) International Publication Date 23 December 2004 (23.12.2004)

**PCT** 

## (10) International Publication Number WO 2004/110869 A1

(51) International Patent Classification<sup>7</sup>: G21K 5/10

B65B 55/08,

(21) International Application Number:

PCT/SE2004/000894

(22) International Filing Date:

8 June 2004 (08.06.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

0301781-1

19 June 2003 (19.06.2003) SF

(71) Applicant (for all designated States except US): TETRA LAVAL HOLDINGS & FINANCE S.A. [CH/CH]; Av. Général-Guisan 70, CH-1009 Pully (CH).

(72) Inventors; and

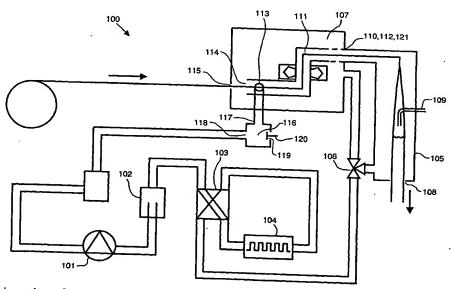
(75) Inventors/Applicants (for US only): NÄSLUND, Lars [SE/SE]; Skattevägen 12, S-244 65 Furulund (SE). NILSSON, Tommy [SE/SE]; Sommargatan 5, S-233 35 Svedala (SE). POPPI, Luca [IT/IT]; Via Piemonte, 1, I-41043 Formigine (IT). ERIKSSON, Anna [SE/SE];

Vässarögatan 38, S-257 33 Rydebäck (SE). BENEDETTI, Paolo [IT/IT]; Via Malatesta, 21, I-41100 Modena (IT). FERRARINI, Filippo [IT/IT]; Via Rondelli, 7, I-41100 Modena (IT).

- (74) Agent: AHL, Camilla; AB Tetra Pak, Patent Department, Ruben Rausings gata, S-221 86 Lund (SE).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,

[Continued on next page]

#### (54) Title: METHOD AND DEVICE FOR ELECTRON BEAM IRRADIATION



(57) Abstract: The invention refers to a method and device for ventilating a device for electron beam irradiation of a web (W), the method comprising the steps of: providing a first chamber (107) comprising a web inlet opening (115) and a web outlet opening (121), providing a second chamber (111) extending inside the first chamber (107), the second chamber (111) comprising a web inlet opening (114), a web outlet opening (112), and an electron exit surface (21) through which electrons are adapted to be emitted into the second chamber (111), passing the web (W) through the second chamber (111), and creating a flow of a gaseous fluid through both the first and second chambers (107,111) in a direction opposite the direction of travel of the web (W) by supplying said fluid into the web outlet opening (121) of the first chamber (107) and providing at least one outlet (113).

#### WO 2004/110869 A1



SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.